



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

ch

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/922,300	09/02/97	PARK	P54766

LM02/1007

ROBERT E BUSHNELL
ATTORNEY AT LAW
STE 300
1522 K ST NW
WASHINGTON DC 20005-1202

EXAMINER
MARC COLEMAN, M

ART UNIT	PAPER NUMBER
2774	

DATE MAILED: 10/07/99

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/922,300

Applicant(s)

Park

Examiner

Marthe Marc-coleman

Group Art Unit

2774



☒ Responsive to communication(s) filed on Aug 24, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-11 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 8-11 is/are allowed.

☒ Claim(s) 1-4 is/are rejected.

☒ Claim(s) 5-7 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2774

DETAILED ACTION

1. This office action is responsive to applicant's amendment filed on August 24, 1999. New claims 8-11 are added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art in view of Hamaguchi et. al. (U.S. Patent No. 5,430,596)

In regard to claims 1 and 4, Applicant discloses in the background of the invention:

- a pulse width modulation (PWM) controller for generating a PWM signal under the control of the microcomputer;
- a current amplifier for amplifying current in response to the PWM signal from the PWM controller;
- a horizontal/vertical (H/V) processor for driving a horizontal driver under the control of a microcomputer;
- the H/V processor outputs a horizontal pulse signal of square wave to the horizontal driver under the control of a microcomputer;

Art Unit: 2774

- a horizontal deflection coil is mounted to the neck of a display device so that electron beams can be deflected to the left or right according to a direction of current flowing through the coil;
- an S correction capacitor applies a parabola voltage to the horizontal deflection coil to correct a linearity of center-to-left and right sides of a screen of the display device;
- a horizontal output circuit for supplying current to a horizontal deflection coil and an S-correction capacitor in response to output signals from the current amplifier and horizontal drive;
- a horizontal/vertical (H/V) processor constant voltage circuit for supplying a constant voltage to the H/V processor to drive it;

Applicant admitted prior art does not disclose a power interruption delay charging means.

Hamaguchi et al. disclose a CRT protection circuit for detecting an overcurrent or an overvoltage to a CRT to protect the CRT (see abstract and Fig. 4, and Fig. 1 circuit 16).

At the time of the invention, it would have been obvious to one skilled in the art to utilize Hamaguchi et al.'s power regulator circuitry with Applicant admitted prior art because it would protect the CRT display (see Hamaguchi et al. abstract).

In regard to claim 2, Hamaguchi et al. disclose :

- a polarity capacitor for performing charging operation and a diode connected to the polarity capacitor for preventing a voltage on the polarity capacitor from being discharged (see Fig. 1 circuit 16).

In regard to claim 3, Applicant admitted prior art discloses:

Art Unit: 2774

- a power supply circuit is adapted to convert commercial alternating current (AC) into direct current (DC) (see page 2 of the background of the invention lines 1-2).
- a horizontal deflection circuit under the control of a microcomputer, receiving said direct current input voltage, for horizontally deflecting electron beams generated in the cathode ray tube (see page 2 background of the invention lines 5-8);
- a display device having a set protection function upon generation of abnormal voltage (see abstract and Fig. 4, and Fig. 6 circuit 120).
- a polarity capacitor for performing charging operation and a diode connected to the polarity capacitor for preventing a voltage on the polarity capacitor from being discharged (see Fig. 6 circuit 120).

4. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure (e.g. Leaver , Arai et al., Jackson et al., Morrish, Hamaguchi et al., Choi, Jung et al., Walker et al., Lendaro).

Allowable Subject Matter

5. Claims 8-11 are allowable because none of the references, either singularly or in combination, teach or fairly suggest:

Art Unit: 2774

“ one terminal of said primary coil being connected to an output terminal of said pulse width modulation controller through a capacitor and another terminal of said primary coil being connected to the ground terminal;

said field effect transistor having a drain terminal connected to a high voltage source and a source terminal connected in common to a second terminal of said secondary coil and one other side of a pulse transformer;

said pulse transformer having a second side connected to one side of said horizontal deflection coil;”.

6. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In regard to claims 5-7, none of the references, either singularly or in combination, teach or fairly suggest:

“ one terminal of said primary coil being connected to an output terminal of said pulse width modulation controller through a capacitor and another terminal of said primary coil being connected to the ground terminal;

Art Unit: 2774

said field effect transistor having a drain terminal connected to a high voltage source and a source terminal connected in common to a second terminal of said secondary coil and one other side of a pulse transformer;”.

Response to Arguments

7. Applicant's arguments filed on July 26, 1999 have been fully considered but they are not persuasive.

Applicant argues that “Krause makes no mention of such a power interruption delay function.” Examiner agrees, however in view of newly discovered art U.S. Patent No. 5,430,596, Hamaguchi et al. disclose a CRT protector circuit for detecting overvoltage and protect the CRT.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc-Coleman Marthe whose telephone number is (703) 305-4970. The examiner can be reached from Monday through Friday 7:30AM to 4:00PM.

If any attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached at (703) 305-4709.

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to Group Receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to :

Commissioner of Patents and Trademarks

Application/Control Number: 08/922,300

Page 7

Art Unit: 2774

Washington, D. C. 20231

or faxed to :

(703) 308-9051, (for formal communications intended for entry)

OR :

(703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington. VA.,
Sixth Floor (Receptionist).

Patent Examiner

MYM

Marc-Coleman Marthe

September 30, 1999



RICHARD A. HJERPE
SUPERVISORY PATENT EXAMINER
GROUP 2700